

WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:
image forming means capable of forming an image
with a hypochromic toner and a hyperchromic toner of
5 a substantially same hue;
a first toner containing portion containing
said hypochromic toner;
a second toner containing portion containing
said hyperchromic toner; and
10 density detecting means which detects a density
of an image formed with said hypochromic toner and
said hyperchromic toner.
2. An image forming apparatus according to
15 claim 1, wherein said density detecting means detects
a density of an image formed with said hypochromic
toner.
3. An image forming apparatus according to
20 claim 1, wherein said density detecting means detects
a density of an image formed with said hyperchromic
toner.
4. An image forming apparatus according to any
25 of claims 1 to 3, wherein an image forming condition
for an image to be formed by said image forming means
on a transfer member is controlled according to a

result of detection of said density detecting means.

5. An image forming apparatus according to claim 4, wherein, at an increase of gradation data
5 for an image to be formed on said transfer member, said hypochromic toner is employed with an increasing recording rate while said hyperchromic toner is not employed until said gradation data reaches a predetermined value, and said hyperchromic toner is
10 mixed, with an increasing recording rate, with said hypochromic toner beyond said predetermined value.

6. An image forming apparatus according to claim 1, wherein, in said image formed by said
15 hypochromic toner and said hyperchromic toner and detected by said density detecting means, said hyperchromic toner has a recording rate smaller than a recording rate of said hypochromic toner.

20 7. An image forming apparatus according to claim 1, further comprising:
an image bearing member;
wherein said image detected by said density detecting means is formed on said image bearing
25 member.

8. An image forming apparatus according to

claim 1, further comprising:

an intermediate transfer member to which an
image is transferred from an image bearing member;

wherein said image detected by said density
5 detecting means is formed on said intermediate
transfer member.

9. An image forming apparatus according to
claim 4, wherein said image detected by said density
10 detecting means is formed on said transfer member.

10. An image forming apparatus according to
claim 9, wherein said density detecting means detects
a density of said image fixed on said transfer member.

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11. An image forming apparatus according to
claim 4, wherein said image forming condition is at
least one of a latent image forming condition, a
developing condition, a transfer condition and a
20 fixing condition.

12. An image forming apparatus according to
claim 4, wherein, in case a result of detection of
said density detecting means is not a desired value,
25 said image forming condition is so controlled as to
form an image with a proportion of the hypochromic
toner and the hyperchromic toner, determined

according to predetermined data indicating a relationship between gradation data and a toner proportion in an image.

5 13. An image forming apparatus according to claim 4, wherein, in case a result of detection of said density detecting means is not a desired value, a remaining amount of toner in at least one of said first toner containing portion and said second toner
10 containing portion is brought to a predetermined amount.

 14. An image forming apparatus according to claim 4, wherein, in changing an input data D_{in} from
15 a minimum value to a maximum value for varying the gradation level from a minimum level to a maximum level, said image forming condition is controlled in such a manner that a lightness L^* of said image satisfies a relation:

20 $L^*(D_{in1}) > L^*(D_{in2})$

in case $D_{in1} < D_{in2}$ and that a change ΔL^* in the lightness corresponding to a change in said gradation data remains within a predetermined range.

25 15. An image forming apparatus according to claim 1, wherein said hypochromic toner and said hyperchromic toner has a color which is at least one

of magenta, cyan and yellow.

16. An image forming apparatus comprising:

image forming means capable of forming an image
5 with a hypochromic toner and a hyperchromic toner of
a substantially same hue;

a first toner containing portion containing
said hypochromic toner;

a second toner containing portion containing
10 said hyperchromic toner; and

density detecting means which detects a density
of a first image formed with said hypochromic toner
and a density of a second image formed with said
hyperchromic toner.

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17. An image forming apparatus according to
claim 16, wherein an image forming condition for an
image to be formed by said image forming means on a
transfer member is controlled according to a result
20 of detection of said density detecting means.

18. An image forming apparatus according to
claim 17, wherein, at an increase of gradation data
for an image to be formed on said transfer member,
25 said hypochromic toner is employed with an increasing
recording rate while said hyperchromic toner is not
employed until said gradation data reaches a

predetermined value, and said hyperchromic toner is mixed, with an increasing recording rate, with said hypochromic toner beyond said predetermined value.

5 19. An image forming apparatus according to claim 16, further comprising:
 an image bearing member,
 wherein said image detected by said density
 detecting means is formed on said image bearing
10 member.

 20. An image forming apparatus according to claim 16, further comprising:
 an intermediate transfer member to which an
15 image is transferred from an image bearing member,
 wherein said image detected by said density
 detecting means is formed on said intermediate
 transfer member.

20 21. An image forming apparatus according to claim 17, wherein said image detected by said density
 detecting means is formed on said transfer member.

 22. An image forming apparatus according to
25 claim 21, wherein said density detecting means
 detects a density of said image fixed on said
 transfer member.

23. An image forming apparatus according to claim 17, wherein said image forming condition is at least one of a latent image forming condition, a developing condition, a transfer condition and a
5 fixing condition.

24. An image forming apparatus according to claim 17, wherein, in case a result of detection of said density detecting means is not a desired value,
10 said image forming condition is so controlled as to form an image with a proportion of the hypochromic toner and the hyperchromic toner, determined according to predetermined data indicating a relationship between gradation data and a toner
15 proportion in an image.

25. An image forming apparatus according to claim 17, wherein, in case a result of detection of said density detecting means is not a desired value,
20 a remaining amount of toner in at least one of said first toner containing portion and said second toner containing portion is brought to a predetermined amount.

25 26. An image forming apparatus according to claim 17, wherein, in changing an input data D_{in} from a minimum value to a maximum value for varying the

gradation level from a minimum level to a maximum level, said image forming condition is controlled in such a manner that a lightness L^* of said image satisfies a relation:

5 $L^*(D_{in1}) > L^*(D_{in2})$

in case $D_{in1} < D_{in2}$ and that a change ΔL^* in the lightness corresponding to a change in said gradation data remains within a predetermined range.

10 27. An image forming apparatus according to claim 16, wherein said hypochromic toner and said hyperchromic toner has a color which is at least one of magenta, cyan and yellow.